## THE INTERNAL SECRETIONS OF THE SANATORIUM.

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Saint Paul, poor man, worrying about the noisy sectionalism of the early church, as we may sometimes, and needlessly, about the sectionalism in medicine, insisted that there must be many members in one body and that all members have not the same office. "The eye cannot say unto the hand, I have no need of thee; nor again the head to the feet, I have no need of you." If his medical reading had taken in modern treatises upon endocrines I am sure he would have enforced the need of coöperation, not so much by the more evident eye and hand and foot as by the hidden internal secretions, elaborated in obscure tissues, thrown into the general blood stream, carried to all parts of the body, and so needful that "wholth" or health is possible only in their balance, and their unbalance is defect or disease. the many members in the great body of medical science and practice have not all the same office. A medical profession without specialization, with everybody trying to investigate everything, and do everything, would soon let medical science slip through its fingers. we must not stew in our own juices. Piece work makes the factory hand: the artist must know something of the whole craft.

We might very well claim as an early sanatorium the temple of Æsculapius at Cos, with its most distinguished medical superintendent Hippocrates himself. But even the modern sanatorium, though a comparatively new "organ," has functioned now for three generations, and very actively for one. By this time we should know what secretions it can elaborate and throw into general circulation for the good of the whole body.

The external secretions—to use an old term—the outward, avowed, advertised works of the sanatorium, are known to all men. It studies, applies and teaches better diagnosis than the old diagnosis, better tools to work with than the old tools, better treatment than the old treatment for the whole range of tuberculosis and for pulmonary diseases other than tuberculosis. These are very evident functions and of great value.

But forget if you can all these external outflows, all tangible results, all statistics, say, of Trudeau and his Saranac, the "cases" better dealt with, bodies healed, lives saved. Now consider what things are left, less apparent, less observed, less tangible; consider the endocrines of Saranac, of Trudeau.

What, then, may be considered the internal secretions of the sanatorium; of the modern dealing with tuberculosis? What principles, practices or points of view are elaborated rather better in these special experiences than elsewhere in the great body of medical practice?

In the first place the sanatorium has intensively developed, studied and applied certain natural means of treatment of disease. The greatest of these is rest. In the cure of tuberculosis it is the alpha and the omega. Without general rest, and local rest, little can be done; with it miracles of healing are wrought. I am not pretending that rest is a monopoly or even a discovery of those who treat tuberculosis. The commonest of all prescriptions, perhaps, is that of Olivia for Sir Andrew Aguecheek, "Get him to bed and let his hurts be looked to," which, you will see, calls for rest first, and even diagnosis, second. A world where hurts were healed without rest would be almost as topsy-turvy as one without gravitation.

But we who treat tuberculosis have to become specialists in the fine art of applying rest to the cure of disease. We must fairly soak our patients in it, months of it, years of it, months even after all symptoms have disappeared. We would, I am sure, order bed not infrequently where our confrères recommend gymnasium, or a month in pajamas instead of the excitements and stimulations of travel so very often prescribed. I ask my sudents if they are to carry away one idea only from a few weeks of sanatorium apprenticeship to let it be that of the usefulness of rest in the treatment of diseases in general, what constitutes rest, how to apply it, modify it, make it palatable, how to teach it, when to prescribe it, and, most of all, how and when to persevere in it. Of all the needs of the sick, rest is the most universal, and he who learns this well has in old mother Nature a firm ally.

Ours, too, is the faith that fresh, clean air is better than cooked, stale air; and not because diseased lungs need the best of air to breathe, but because all sick people need the best of air to live in.

The reasons why tuberculous patients should be in the open air are exactly the reasons why almost all sick people, especially the more toxic, and the more chronically ill, should be in the open air. To put a sick man out of doors is not to apply a treatment; it is to remove a handicap in the way of treatment. Three out of four hospital patients are indoors rather than out, not because they are better in than out, but because the architect has not opened the door and the doctor has not demanded that it be opened.

The cave man, stricken, crawling out of dampness and gloom to bask in the light of day, saw in the sun the supreme source of life and health, the God of all. Flowers of the field, and human flowers as well, flourish in the sun. Disease lurks in the dark; light heals. For long ages people forgot these things. Even yet sick people lie for weary months in beds placed where no flowers could even live. It is in our day, and in the treatment of tuberculosis, that light as a means of cure has been rediscovered and is being explored. We may even be just at the very beginning of something new under the sun. If quartz glass, which lets the whole of sunlight through as ordinary glass does not, can only be cheapened, every hospital may have, indeed must have its solarium, and the sick may be in the sun winter as well as summer. It was said to have been cheapened by a recent discovery, but the cost is still a dollar a square inch.

Rest, fresh air and sunlight, like the outdoor school, are somehow considered special privileges of the tuberculous. Why the discrimination? "How sick does a fellar have to be"—in the words of the urchin looking longingly at the outdoor school—before he can have them? Wilting flowers are carried outdoors, but wilting people are carried indoors into changeless, sunless wards. Healthy normal people have sunshine and moving air; ill people, the physically ill in hospital, the mentally ill, the morally ill in jails, when they need them most, lose air and sun. If only the tuberculous are to have them, why not pretend that almost all our patients have a stray bacillus of tuberculosis somewhere in their anatomies, so they may get back their birthrights of light and air?

Dealing as we do with a disease that is often life long and that waxes and wanes with environment and adjustment to environment, it follows that to treat our tuberculous patients we must teach them, mould their minds and wills into new philosophies and ways of life.

Cured bodies are but half results. We must have instructed minds and changed purposes as well. Old things must pass away and many things become new. Our patients are our converts, our neophytes, and must have help against the world, the flesh, and the devil. A dumb doctor and a deaf patient may between them patch up a broken leg or cure typhoid fever, but tuberculosis is quite another matter. Here teaching must be the beginning, the middle and the end of treatment. We would not by any means pose as the only faithful few who teach. I have no doubt teaching has a very large place in the best dealings with a great many sick people. But we are driven to it daily, our wards are schools, and this necessity of teaching thus produces another endocrine of the sanatorium.

In the mummery of the medicine man, ancient or, perchance, modern, the essence was mystery. Let the people practiced upon only penetrate the mystery, get wise, and the game was up. The essence of scientific medicine is not a bag of tricks, but a method that can be followed and a body of truth that can be taught. The grand total of what it is doing for some individuals and can do for the race, the people in general and their governors do not know nor even imagine. There is much that cannot be taught to the people in general, but much can be, should be, must be taught. "Doctor" once meant teacher and should again in our day. If we do not teach, the charlatans will. Indeed, the charlatans are teaching.

"The hungry sheep look up, and are not fed, But, swoln with wind and the rank mist they draw, Rot inwardly, and foul contagion spread, Besides what the grim wolf with privy paw Daily devours apace, and nothing said."

Medical men must teach.

It may be said that we who deal with tuberculosis can scarcely help having also a special sense of disease as related to the community in its causes, courses and effects. At almost all its roots this is essentially a community disease. Its death rate in England rises and falls with the price of bread, and everywhere varies with unemployment or prosperity, with housing better or worse, with overcrowding, rents, wages, epidemics, with ignorance or intelligence, with war or peace, with all phases and standards of living.

This disease, which forms our dominant idea of disease, spreads

an almost universal infection. It is always at least in the background, and whatever may be the exits and entrances of illness or health during life it is never entirely off the boards. When it takes the center of the stage it can play many parts. It is protean in its form and phases. And once fairly before the footlights it has a place in the plot, in major or minor parts, always ready for a leading rôle if the stage is left open for it, always looking for a cue, until the curtain is at last rung down. Our patients can very often only gather up the fragments that remain of life. They must work or play by measure, counting the costs of the bits of life they can in their poverty purchase, always with the threat hanging over them of bankruptcy and ruin.

The problem of treating tuberculosis is not that of a short pitched battle with an infection. It is a problem of taking a man whom environment largely has driven into disease, treating him, teaching him, giving him new ideas and new purposes, and sending him back with his diseased body merely patched to make good in an environment in which he failed before. A physician who develops no social sense, to whom disease is merely a body invaded by a bacillus, and a community a fortuitous collection of such bodies, must be blind indeed.

We who deal with tuberculosis come to think, almost as an obsession, about the fragility of people in general. We are surrounded always by men and women the very picture of robust health, but who must watch every hap and hazard, and for whom every insult to the body, even slight, every overtaxing of strength, every operation, every anesthetic must be studiously minimized. These are the known tuberculous, and every day others join them as known tuberculous who have come a cropper by just such overstrains. In every hundred ordinary people, faring about their ordinary business along the streets of ordinary towns in Canada and the United States today, two or three have undetected tuberculosis that would be distinguishable on examination, and one active tuberculosis. And tuberculosis is not the only cause of undetected fragility. Just how many average ordinary people of ordinary appearance in each hundred are really fragile from some physical flaw or other would be a very proper subject for inquiry.

The time to learn of such fragility is before the crash, not after it. There is one way only by which early tuberculosis may be found

and that is by careful examination before any complaint is made. About the only hope of finding any disease at any early stage is by the routine examination of the apparently and presumably well. This periodical examination of the well cannot give worth while results until physicians are ready for it. How many doctors are there who know what to do with a man who has no symptoms, but wishes to be well checked over from top to toe?

In the meantime should it be a counsel of perfection to urge, at least in times of unaccustomed strain or stress, a thorough search for latent disease? For instance, could not the wide spread of tuberculosis be considered, at least to the extent of a pair of chest plates as a routine, before any operation under a general anesthetic or early in the course of a pregnancy?

The outward and visible works of the sanatorium, its external secretions, have the appearance often more of failure than of success. It is expected of us that we treat—and indeed that we cure—those who have waited even past the eleventh hour and have come to us at the very midnight of their utter hopelessness. Lives that might have been saved are lost in scores and hundreds, in spite of all our warnings, by ignorance and neglect.

But if our external works discourage, we can perhaps find a little comfort in endocrine functions performed. Even from the most hopeless material, by study and research, we can distill essential principles, helpful and necessary to our art, and throw them forth in teaching into the arteries of the men of our craft. The sanatorium, even to save its own soul, must learn, must lose no opportunity of learning. And it must teach, let pass no opportunity of teaching. When the day's work is considered as teaching it takes on a dignity and a permanence that makes it a high vocation. "Education," Husley has well said, "is the greatest work of all those that lie ready to a man's hand."